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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

TSAL, CAROL S W

ART UNIT PAPER NUMBER

2857

DATE MAILED: 06/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/981,960

Applicant(s)

EBERLE ET AL.

Examiner

Carol S Tsai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 9, 12, 19, 20, 23, 30, 35, and 40-43 are rejected under 35 U.S.C. 102(b) as being anticipated by U. S. Patent No. ~~6,065,080~~ ^{5,739,791} to Barefield et al.

With respect to claims 1-3, 19, 30, 35, 40, and 42, Barefield et al. disclose a computer system comprising: a) a memory module for storing data, including: 1) a circuit board having a plurality of electrical terminals (see col. 5, lines 55-60); 2) a volatile memory device (RAM 22 shown on Fig. 2) mounted on the circuit board; 3) a non-volatile memory device (ROM 24 shown on Fig. 2) mounted on the circuit board and storing memory module information; and 4) a radio transmitter (transmitter 16 shown on Fig. 1) mounted on the circuit board, the radio transmitter operable to receive at least a portion of the memory module information from the non-volatile memory device and transmit the at least a portion of the memory module information; and b) a radio receiver (receiver 16 shown on Fig. 1) that is operable to receive the at least a portion of the memory module information from the radio transmitter (see col. 4, line 54 to col. 6, line 44).

As to claims 9 and 20, Barefield et al. also disclose the radio transmitter being a radio transceiver (transmitter/receiver 16 shown on Fig. 1).

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As to claims 12 and 23, Barefield et al. also disclose the radio transceiver being operable to receive radio signals from a first radio transmitter and a second radio transmitter (see col. 5, lines 11-14).

As to claims 41 and 43, Barefield et al. also disclose using the received memory module information to configure a memory controller (see col. 5, lines 48-51).

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 44-47 are rejected under 35 U.S.C. 102(a)/(b) as being anticipated by Applicants' admitted Prior Art (referred thereafter as AAPA).

With respect to claims 44-47, AAPA discloses a method of determining the location of a memory module within a computer system, comprising: a) determining the signal strength of a first radio signal; b) determining the signal strength of a second radio signal; and c) based upon the determined signal strengths, determining the location of the memory module (see page 8, lines 7-18).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barefield et al. in view of U. S. Publication 2002/0118175 to Liebenow et al.

As noted above, with respect to claims 4-7, Barefield et al. disclose the claimed invention, except for the volatile memory device being a synchronous dynamic random access memory (SDRAM) device and the non-volatile memory device being an electrically programmable read only memory (EPROM)/an electrically erasable programmable read only memory (EEPROM)/a serial electrically erasable programmable read only memory (SEEPROM).

Liebenow et al. teach volatile memory device being a synchronous dynamic random access memory (SDRAM) device and the non-volatile memory device being an electrically programmable read only memory (EPROM)/an electrically erasable programmable read only memory (EEPROM)/a serial electrically erasable programmable read only memory (SEEPROM) (see paragraph 0058).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Barefield et al.'s system to include volatile memory device being a synchronous dynamic random access memory (SDRAM) device and the non-volatile memory device being an electrically programmable read only memory (EPROM)/an electrically erasable programmable read only memory (EEPROM)/a serial electrically erasable programmable read only memory (SEEPROM), as taught by Liebenow et al., in order to allow information to be stored and retrieved.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barefield et al. in view of U. S. Publication 2002/0101907 to Dent et al.

As noted above, Barefield et al. disclose the claimed invention, except for the non-volatile memory being connected to the radio transmitter via an I²C bus.

Dent et al. teach the non-volatile memory being connected to the radio transmitter via an I²C bus (see paragraph 0046).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Barefield et al.'s system to include the non-volatile memory being connected to the radio transmitter via an I²C bus, as taught by Dent et al., in order that information stored in the non-volatile memory can be transferred to the radio transmitter.

8. Claims 10, 11, 13-18, 21, 22, 24-29, 31-34, and 36-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barefield et al. in view of Applicants' admitted Prior Art (referred thereafter as AAPA).

As noted above, with respect to claims 10, 11, 13-18, 21, 22, 24-29, 31-34, and 36-39, Barefield et al. disclose the processor (CPU 20 shown on Fig. 2) being mounted on the circuit board.

Barefield et al. do not disclose determining the signal strength and the propagation delay of a radio signal received from a first transmitter, the signal strength and the propagation delay of a radio signal received from a second transmitter, and the location of the memory module based upon the determined signal strengths and propagation delays.

AAPA discloses determining the signal strength and the propagation delay of a radio signal received from a first transmitter, the signal strength and the propagation delay of a radio signal received from a second transmitter, and the location of the memory module based upon the determined signal strengths and propagation delays (see page 8, lines 7-18).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Barefield et al.'s system to include determining the signal strength and the propagation delay of a radio signal received from a first transmitter, the signal strength and the propagation delay of a radio signal received from a second transmitter, and the location of the memory module based upon the determined signal strengths and propagation delays, as taught by AAPA, in order to determine the identity of the module slot in which the memory module is located (see AAPA page 8, lines 17-18).

9. Claims 48-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barefield et al. in view of U. S. Patent No. 4,870,704 to Matelan et al.

As noted above, with respect to claims 48-51, Barefield et al. disclose the claimed invention, except for the radio transmitter being operable to transmit information that indicates that the memory module failed a test.

Matelan et al. teach the radio transmitter being operable to transmit information that indicates that the memory module failed a test (see col. 18, lines 16-25 and lines 43-47; col. 19, line 60 to col. 20, line 5; col. 21, lines 20-33; and col. 23, lines 64-68).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Barefield et al.'s system to include the radio transmitter being operable to transmit information that indicates that the memory module failed a test, as taught by Matelan et al., in order that failed component may be turned off and the system allowed to proceed in a degraded mode (see col. 21, lines 31-33).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Zodnik discloses apparatus and methods for power detection and a test mobile unit for measurement of transmission power of a base station and performing a call-test of a base station in a mobile communication system.

Leddige et al. disclose a memory module including a first memory bus.

Marsan et al. disclose a radio communication system assigning use of a radio frequency communication resource comprising multiple communication channels in a way that minimizes the likelihood that a weakly received signal will be interfered with by a strongly received signal in an adjacent communication channel.

Wallace et al. disclose a memory card assembly having a first end connected to a host device and a second end connected to a retractable antenna assembly.

Bolleman et al. disclose a microcontroller or microprocessor-controlled broadcast receiver embedded in an external peripheral with a digital communications interface.

Imamura discloses a diversity receiving system for receiving modulated RF signals using

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an array of antennas and recovering information signals from the modulated signals, the information signal of the highest strength being selected to allow a connection to be established from a transmit site.

Madsen et al. disclose an antenna system for a portable computer allowing communication between a portable computer and a wireless communication system to be established.

Madsen et al. disclose an adaptor module that allowing an electrical connection to be established between a communication system and a communication card.

Contact Information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol S. Tsai whose telephone number is (703) 305-0851. The examiner can normally be reached on Monday-Friday from 7:30 AM to 4:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (703) 308-1677. The fax number for TC 2800 is (703) 308-7382. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2800 receptionist whose telephone number is (703) 308-1782.

In order to reduce pendency and avoid potential delays, Group 2800 is encouraging FAXing of responses to Office actions directly into the Group at (703) 308-7382. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the

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examiner and art unit at the top of your cover sheet. Papers submitted via FAX into Group 2800 will be promptly forwarded to the examiner.

Carol S. Tsai

06/04/03

